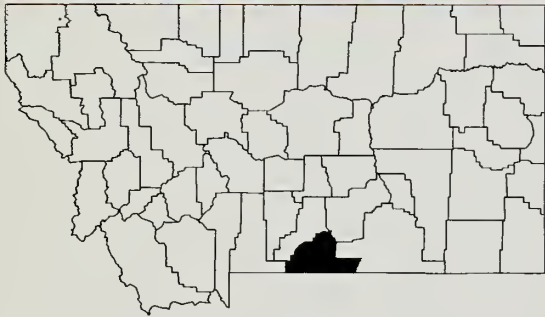


Historic, Archive Document

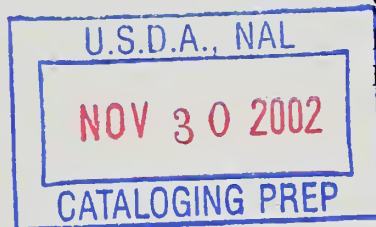
Do not assume content reflects current scientific knowledge, policies, or practices.

EAST FORK ROSEBUD CREEK BRIDGE, Carbon County, Montana

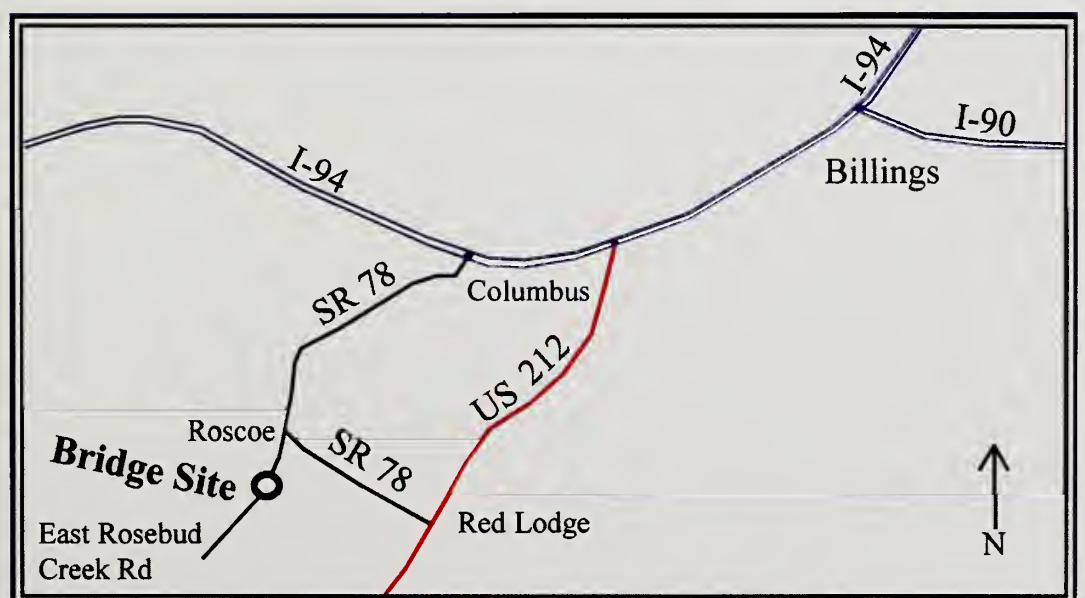
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Type: Transverse Glulam Deck w/Glulam Beams
County: Carbon
Owner: Carbon County, Montana
Engineer: Ben Hurlbut
Spans over: East Fork Rosebud Creek
Bridge length: 128'-6"
Roadway width: 16'-0"



Directions: From Columbus and the intersection of I-94 and SR 78 take SR 78 south toward Roscoe. At Roscoe turn right onto East Rosebud Creek Rd. The bridge site is 3 miles from the intersection of SR 78 and East Rosebud Creek Rd.



USDA Forest Service

The National Wood In
Transportation Program





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WIT-15-0020

GEOMETRY

Number of Spans: 2	Design load: HS-20	Pier: Existing timber crib filled w/reinforced concrete
Out-to-out length: 128'-6"	Deadload: 325 lbs/ft/beam	Total project cost: \$140,600
Center-of-bearing span lengths: 62'-6"	Averaged daily traffic: 75	Total superstructure cost: \$88,000
Skew: 0 degrees	Superstructure design by: Ben Hurlbut	Total superstructure cost /sq ft: \$44.53
Number of lanes: 1	Abutment material: Wood	
Out-to-out width: 16'-0"	Abutment type: Treated timber, retaining wall, w/timber anchors & steel tie rods	
Rail-to-rail width: 15'-0"	Abutment height (bottom of footings to top of deck): 13'-6"	
Superstructure square footage: 2,056	Abutment design by: Merv Eriksson, USDA Forest Service	

MATERIAL

DECK	BEAMS/STRINGERS	GUIDERAIL POSTS
Material: Wood/glulam	Material: Wood/glulam	Material: Wood/glulam
Species: Coastal Douglas-fir	Species: Coastal Douglas-fir	Species: Coastal Douglas-fir
Allowable bending stress: 1920 psi	Allowable bending stress: 2400 psi	Sizes used: 6-3/4" x 7-1/2" x 5'-6"
Sizes used: 5-1/8" x 48" x 16'-0"	Sizes used: 8-3/4" x 42" x 60'-0" & 63'-0"	Preservative Treatment: Pentachlorophenol
Quantity: 10,127 bf	No. and spacing: 4 @ 4'-4"	
Preservative treatment: Pentachlorophenol	Quantity: 15,068 bf	
Wearing surface: 1/4" black steel plate	Preservative treatment: Pentachlorophenol	
GUIDERAIL	ABUTMENTS	PIER:
Material: Wood/glulam	Material: Wood	Existing treated timber crib (8" x 8" members) top 2' filled with new reinforced concrete
Species: Coastal Douglas-fir	Species: Coastal Douglas-fir	
Size: 5-1/8" x 6"	Grade: No. 1 or better	
Preservative Treatment: Pentachlorophenol	Preservative treatment: Pentachlorophenol	
	Hardware & structural steel: A36 (uncoated), A307 bolts & nuts (uncoated)	

LOCAL IMPACT: This bridge carries East Rosebud Creek Road over the East Fork of Rosebud Creek. Logging trucks, ranch equipment, and recreation traffic use the bridge.

BRIDGE PERFORMANCE: This single lane, 2 span, glued-laminated bridge replaced a 3 span timber/steel bridge (1 span-timber beams, 1 span-timber truss, and 1 span-steel beams). One mid-span, rock-filled, treated timber crib was repaired and filled with reinforced concrete.

FUNDING SOURCES: USDA Forest Service: \$45,100; Balance of funding from Carbon County, Montana.

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Information provided by Merv Eriksson, Structural Engineer, USDA Forest Service

WIT Program Proposal Number: R01-04-93

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